

U. S. PTO Customer No. 25280

Case #5113D

Amendments to the Claims:

1. (Currently Amended): A carpet tile, comprising: a primary carpet, and a flame laminated rebond foam cushion fixed at a position below said primary carpet.
2. (Currently Amended): The invention as recited in claim 1, further comprising at least one adhesive layer of at least one adhesive material between said primary carpet and said flame laminated rebond foam cushion.
3. (Currently Amended): The invention as recited in claim 1, further comprising a layer of reinforcing material disposed at least partially within a mass of adhesive material such that at least a portion of said mass of adhesive material extends away from at least one side of said layer of reinforcing material.
4. (Original): The invention as recited in claim 2, wherein the adhesive material comprises at least one of a thermoplastic and thermoset adhesive.
5. (Original): The invention as recited in claim 1, wherein the primary carpet is characterized by a face weight of about 12 - 60 oz/yd².
6. (Original): The invention as recited in claim 1, wherein the surface covering has a plurality of corners wherein each of said corners has a cup of about 3/16" or less and a curl of about 1/16" or less.
7. (Original): The invention as recited in claim 2, wherein the adhesive layer is present at a level of less than or equal to about 100 oz/yd².
8. (Original): The invention as recited in claim 2, wherein the adhesive layer is present at a level of about 36 - 90 oz/yd².

U. S. PTO Customer No. 25280

Case #5113D

9. (Original): The invention as recited in claim 1, wherein the rebond foam cushion is characterized by a density of about 25 lbs. per cubic foot or less.
10. (Original): The invention as recited in claim 1, wherein the rebond foam cushion is characterized by a density of about 9 lbs. per cubic foot or less.
11. (Original): The invention as recited in claim 1, wherein the rebond foam cushion is characterized by an uncompressed chip size of about 25 mm or less.
12. (Original): The invention as recited in claim 11, wherein the uncompressed chip size is about 12 mm or less.
13. (Original): The invention as recited in claim 11, wherein the uncompressed chip size is about 7 mm or less.
14. (Original): The invention as recited in claim 1, wherein the rebond foam is characterized by a binder quantity of about 25% or less.
15. (Original): The invention as recited in claim 14, wherein the binder content is about 15% or less.
16. (Original): The invention as recited in claim 14, wherein the binder content is about 10% or less.
17. (Original): The invention as recited in claim 2, wherein the adhesive material comprises a hot melt adhesive.
18. (Original): The invention as recited in claim 1, wherein the primary carpet is characterized by a face weight of less than or equal to about 55 oz/yd².

U. S. PTO Customer No. 25280

Case #5113D

19. (Original): The invention as recited in claim 17, wherein the hot melt adhesive is present at a level of about 36 – 50 oz/yd².
20. (Original): The invention as recited in claim 2, wherein the adhesive material comprises a polyolefin based thermoplastic hot melt adhesive.
21. (Original): The invention as recited in claim 1, wherein the primary carpet is at least one of a tufted, bonded, flocked, needle punched, and woven carpet.
22. (Currently Amended): The invention as recited in claim 1, wherein flame laminated the rebond foam cushion is characterized by a thickness of about 25 mm or less.
23. (Original): The invention as recited in claim 22, wherein the foam thickness is about 12 mm or less.
24. (Original): The invention as recited in claim 22, wherein the foam thickness is about 4 mm or less.
25. (Original): The invention as recited in claim 2, wherein the adhesive material comprises a polyurethane thermoset adhesive.
26. (Currently Amended): The invention as recited in claim 1, wherein the flame laminated rebond foam cushion includes a backing material bonded to one surface thereof via flame lamination.
27. (Original): The invention as recited in claim 1, wherein the primary carpet is a tufted carpet including pile yarn, primary backing, and a pre-coat adhesive.
28. (Original): The invention as recited in claim 1, wherein the primary carpet is a tufted carpet including pile yarn and a primary backing.

U. S. PTO Customer No. 25280

Case #5113D

29. (Original): The invention as recited in claim 1, wherein the primary carpet is a bonded carpet including pile yarn and a backing material.
30. (Original): The invention as recited in claim 3, wherein said layer of reinforcing material comprises at least one of a porous scrim, woven, and non-woven material.
31. (Original): The invention as recited in claim 3, wherein said reinforcement material is formed of fiberglass.
32. (Original): The invention as recited in claim 3, wherein said reinforcement material comprises a porous textile structure.
33. (Original): The invention as recited in claim 3, wherein said reinforcement material consists essentially of polyester.
34. (Original): The invention as recited in claim 3, wherein said layer of reinforcing material comprises a plurality of glass fibers.
35. (Original): The invention as recited in claim 3, wherein said layer of reinforcing material comprises a plurality of polyester fibers.

Claims 36 - 37 (Cancelled)

38. (Currently Amended): The invention as recited in claim 3, wherein ~~said primary carpet is a bonded carpet and wherein~~ said mass of adhesive material extends between said layer of reinforcing material ~~rebond foam cushion~~ and the underside of said primary carpet fabric.

39. (Cancelled)

U. S. PTO Customer No. 25280

Case #5113D

40. (Original): The invention as recited in claim 1, wherein said rebond foam cushion is characterized by a density of about 6 to 12 lbs. per cubic foot.
41. (Currently Amended): A carpet tile, comprising: a primary carpet, a flame laminated polyurethane rebond foam cushion disposed at a position below said primary carpet, a mass of adhesive material disposed in bonding relation between said primary carpet and ~~said rebond foam cushion and~~ a layer of reinforcing material, said layer of reinforcing material bonded to the disposed between said primary carpet and rebond foam cushion via flame lamination such that at least a portion of said mass of adhesive material extends away from at least one side of said layer of reinforcing material.
42. (Currently Amended): The invention as recited in claim 41, wherein the flame laminated rebond foam cushion is characterized by a density of about 25 lbs. per cubic foot or less.
43. (Original): The invention as recited in claim 42, wherein the primary carpet is characterized by a face weight of less than or equal to about 45 oz/yd².
44. (Original): The invention as recited in claim 41, wherein the adhesive material is selected from at least one of thermoplastic and thermoset adhesives.
45. (Original): The invention as recited in claim 41, wherein the surface covering is at least one of a carpet tile, attached cushion broadloom carpet, and roll product.
46. (Original): The invention as recited in claim 41, wherein the polyurethane rebond foam cushion comprises at most 25% polyurethane binder and at least 50% polyurethane foam chips.
47. (Original): The invention as recited in claim 41, wherein the polyurethane rebond foam cushion has a density of about 6 to 12 lb./cu. ft.

U. S. PTO Customer No. 25280

Case #5113D

48. (Original): The invention as recited in claim 41, wherein the primary carpet is a tufted carpet including pile yarn and a primary backing.

49. (Currently Amended): The invention as recited in claim 41, wherein a textile backing material is ~~disposed across~~ bonded to the underside of said polyurethane rebond foam cushion via flame lamination.

Claims 50 – 57 (Cancelled)

58. (Currently Amended) A dimensionally stable cushioned carpet tile suitable for disposition as discrete modular units across a flooring surface, the carpet tile comprising:
a primary carpet fabric having a pile side and a primary base with a plurality of pile forming yarns projecting outwardly from the pile side;

a flame laminated foam cushion layer disposed at a position below the primary carpet fabric; and

a bridging composite extending in bonding relation substantially between the primary base and an upper side of the ~~rebond~~ foam cushion layer wherein the bridging composite consists essentially of a layer of stabilizing material having a first side and a second side, a first layer of at least one resilient adhesive extending away from the first side of the stabilizing material into contacting relation with the primary base and a ~~second layer of at least one resilient adhesive extending away from~~ the second side of the layer of stabilizing material bonded to ~~into contacting relation with~~ the upper side of the foam cushion layer via flame lamination ~~such that the layer of stabilizing material is bonded between the first and second layers of resilient adhesive at a position between the primary base and the rebond foam cushion layer.~~

59. (Original): The invention as recited in claim 58, wherein the primary carpet fabric is a tufted carpet and wherein the primary base comprises a primary backing and a layer of adhesive pre-coat extending across the underside of the primary backing.

U. S. PTO Customer No. 25280

Case #5113D

60. (Original): The invention as recited in claim 59, wherein the adhesive pre-coat comprises at least one of a latex and hot melt adhesive.
61. (Original): The invention as recited in claim 60, wherein the hot melt adhesive is bitumen based hot melt adhesive.
62. (Original): The invention as recited in claim 60, wherein the hot melt adhesive is a polyolefin based hot melt adhesive.
63. (Original): The invention as recited in claim 58, wherein the resilient adhesive is at least one of a thermoset and thermoplastic.
64. (Original): The invention as recited in claim 58, wherein the primary carpet fabric is a bonded carpet.
65. (Currently Amended): The invention as recited in claim 58, wherein the flame laminated foam cushion layer comprises polyurethane rebond foam characterized by a density of about 5 to 25 lbs. per cubic foot.
66. (Currently Amended): The invention as recited in claim 58, wherein the flame laminated foam cushion layer comprises polyurethane rebond foam characterized by a density of about 5 to 12 lbs. per cubic foot.
67. (Original): The invention as recited in claim 58, wherein the first layer of at least one resilient adhesive comprises a thermoplastic adhesive.
68. (Original): The invention as recited in claim 67, wherein said adhesive is bitumen based hot melt adhesive.
69. (Original): The invention as recited in claim 67, wherein said adhesive is a polyolefin based hot melt adhesive.

U. S. PTO Customer No. 25280

Case #5113D

70. (Original): The invention as recited in claim 67, wherein said first layer of resilient adhesive is a thermoset adhesive.

71. (Original): The invention as recited in claim 58, wherein the primary base comprises a primary backing and a layer of latex adhesive pre-coat extending across the underside of the primary backing.

72. (Original): The invention as recited in claim 58, wherein the primary base comprises a primary backing and a layer of hot melt adhesive pre-coat extending across the underside of the primary backing.

Claims 73 - 76 (Cancelled)

77. (Currently Amended): The invention as recited in claim 58, wherein the combined mass of the first layer of at least one resilient adhesive ~~and the second layer of at least one resilient adhesive~~ is not greater than about 100 ounces per square yard.

78. (Original): The invention as recited in claim 58, wherein the stabilizing material comprises a sheet of non-woven fiber glass.

79. (Currently Amended): The invention as recited in claim 58, wherein the first layer of at least one resilient adhesive comprises a hot melt adhesive ~~and the second layer of at least one resilient adhesive comprises a hot melt adhesive~~.

80. (Cancelled)

81. (Currently Amended): The invention as recited in claim 58, further comprising a backing structure ~~disposed across~~ bonded to the lower side of the foam cushion layer via flame lamination.

U. S. PTO Customer No. 25280

Case #5113D

82. (Currently Amended): The invention as recited in claim ~~58~~ 81, wherein ~~the~~ further comprising a backing structure comprises of a multi-component composite.

83. (Previously Presented): The invention as recited in claim 82, wherein said multi-component composite comprises a layer of adhesive disposed adjacent the lower side of the ~~rebond~~ foam cushion layer.

84. (Previously Presented) The invention as recited in claim 83, wherein said layer of adhesive disposed adjacent the lower side of the ~~rebond~~ foam cushion layer is present at a level of not greater than about 40 ounces per square yard.

85. (Currently Amended): The invention as recited in claim ~~82~~ 81, wherein said backing structure ~~comprises a multi-component composite including~~ includes a quick release backing.

Claims 86 – 87 (Cancelled)

88. (Currently Amended): A carpet tile comprising a carpet layer and a backing attached thereto and having at least one flame laminated layer comprised of compressible particles bonded together.

89. (Currently Amended): The carpet tile as recited in claim 88, wherein said flame laminated layer comprised of compressible particles bonded together has an internal tear strength of at least 3 lbs.

90. (Original): The carpet tile as recited in claim 88, wherein the layer of compressible particles bonded together is a compressed particle foam and has a compressibility of less than 100% of the foam thickness at 40 psi.

91. (Original): The carpet tile as recited in claim 88, wherein said carpet tile has an appearance retention rating of at least 4.0 after 4,000 cycles.

U. S. PTO Customer No. 25280

Case #5113D

92. (Original): The carpet tile as recited in claim 91, having an appearance retention rating of at least 3 after 12,000 cycles.
93. (Original): The carpet tile as recited in claim 88, wherein said layer comprised of compressible particles bonded together is at least one of a cut, slit and peeled foam.
94. (Original): The carpet tile as recited in claim 88, wherein said layer has a recycled content of at least 85%.
95. (Original): The carpet tile as recited in claim 88, wherein said layer comprised of compressible particles bonded together is an open celled foam comprised of open celled foam particles bonded together.
96. (Original): The carpet tile as recited in claim 95, wherein the open celled foam is comprised of foamed polyurethane.
97. (Original): The carpet tile as recited in claim 88, wherein said particles bonded together have an average uncompressed chip size of 25 mm or less.
98. (Cancelled)
99. (Original): The carpet tile as recited in claim 88, wherein said layer has a recycled content of at least 50%.
100. (Original): The carpet tile as recited in claim 88, having a hexapod rating >2.0 at 12,000 cycles.
101. (Cancelled)

U. S. PTO Customer No. 25280

Case #5113D

102. (Original): The carpet tile as recited in Claim 88, wherein said layer comprised of compressible particles bonded together is one layer of a flame laminated carpet backing.
103. (Original): The carpet tile as recited in claim 88, having an initial Gmax of less than 125.
104. (Original): The carpet tile as recited in claim 88, having a cushion weight of less than 32 oz/yd² and an initial Gmax less than 125.
105. (Original): The carpet tile as recited in claim 88, wherein the layer of compressible particles bonded together has at least one of a honey-combed, reticulated, and skeletal open cell structure.
106. (Original): The carpet tile as recited in claim 88, wherein the layer of compressible particles bonded together has a structure of randomly placed particles bonded together in a compressed state.
107. (Original): The carpet tile as recited in claim 88, wherein said layer of compressible particles bonded together is substantially free of any filler.
108. (Original): The carpet tile as recited in claim 88, wherein said compressible particles of said layer of compressible particles bonded together are substantially 100% recycled content.
109. (Original): The carpet tile as recited in claim 88, wherein the compressible particles are bonded together with an adhesive.
110. (Original): The carpet tile as recited in claim 109, wherein said adhesive contains at least one additive, agent or compound selected from flame retardant, anti-bacterial, color, anti-microbial, anti-fungal, conductive, anti-static, fibers, filler, recycled materials, and combinations thereof.

U. S. PTO Customer No. 25280

Case #5113D

111. (Original): The carpet tile as recited in claim 88, wherein the compressible particles are bonded together in a compressed state.
112. (Original): The carpet tile as recited in claim 88, wherein said tile includes a plurality of layers of compressible particles bonded together.
113. (Original): The carpet tile as recited in claim 88, wherein said layer of compressible particles bonded together has at least one lateral surface which is cut, peeled, or slit.
114. (Original): The carpet tile as recited in claim 88, wherein the carpet layer includes at least one of woven, tufted, or bonded carpet.
115. (Original): The carpet tile as recited in claim 88, wherein said layer of compressible particles bonded together has air permeability.
116. (Original): The carpet tile as recited in claim 88, wherein the backing is a multilayer backing.
117. (Currently Amended): The carpet tile as recited in claim 88, wherein the backing includes a stabilizing layer flame laminated to one surface of the compressible particles bonded together.
118. (Previously Presented): The carpet tile as recited in claim 88, wherein the compressed particle layer has a thickness of less than 8 mm.
119. (Original): The carpet tile as recited in claim 88, wherein the tile has an overall height of less than 10 mm.
120. (Original): The carpet tile as recited in claim 88, having a caster chair rating of >2.3.
121. (Original): The carpet tile as recited in claim 88, having an EN 1307 rating of >2.

U. S. PTO Customer No. 25280

Case #5113D

122. (Original): The carpet tile as recited in claim 88, having a Herzog walking comfort rating for contract use (DIN 54327) of >0.70 .
123. (Currently Amended): A cushion back carpet tile comprising a carpet layer and a cushion back attached thereto and having at least one flame laminated layer comprised of preformed foamed polyurethane particles bonded together.
124. (Original): The cushion back carpet tile as recited in claim 123, wherein said layer comprised of foamed polyurethane particles bonded together has an internal tear strength of at least 3 lbs.
125. (Original): The cushion back carpet tile as recited in claim 123, wherein said layer comprised of foamed polyurethane particles bonded together has a thickness of about 2 to 20 mm.
126. (Original): The cushion back carpet tile as recited in claim 123, wherein said layer comprised of foamed polyurethane particles bonded together has a compressibility of less than 100% at 40 psi.
127. (Original): The cushion back carpet tile as recited in claim 123, wherein said tile has an appearance retention rating of at least 4 at 4,000 cycles.
128. (Original): The cushion back carpet tile as recited in claim 123, wherein said tile has an appearance retention rating of at least 3 at 12,000 cycles.
129. (Cancelled)
130. (Currently Amended): A foam backed carpet tile with a flame laminated open celled foam comprised of foamed polyurethane particles bonded together.

U. S. PTO Customer No. 25280

Case #5113D

131. (Original): The foam backed carpet tile of claim 130 with an average uncompressed particle size of 15 mm or less.

Claims 132 – 133 (Cancelled)

134. (Currently Amended): A foam backed carpet tile with a flame laminated backing of bonded chips of resilient material attached to a textile face and an initial Gmax of less than 125.

135. (Original): The cushion backed carpet tile of claim 134 with a cushion weight of less than 25 lbs. per cubic foot.

136. (Currently Amended): A cushion backed carpet tile with a carpet layer and a skeletal structured flame laminated foam cushion.

137. (Cancelled)

138. (Currently Amended): A carpet tile comprising a carpet layer and a backing attached thereto and having at least one flame laminated layer comprised of foamed open cell particles bonded together.

139. (Cancelled)

140. (Cancelled)

141. (Currently Amended): A cushion back carpet tile comprising a carpet layer, a stabilizing layer, and a cushion back having at least one flame laminated layer comprised of preformed compressible particles bonded together.

Claims 142-150 (Cancelled)

U. S. PTO Customer No. 25280

Case #5113D

151. (New) The invention as recited in claim 3, wherein said reinforcement material is bonded to one surface of the flame laminated rebond foam cushion via flame lamination.